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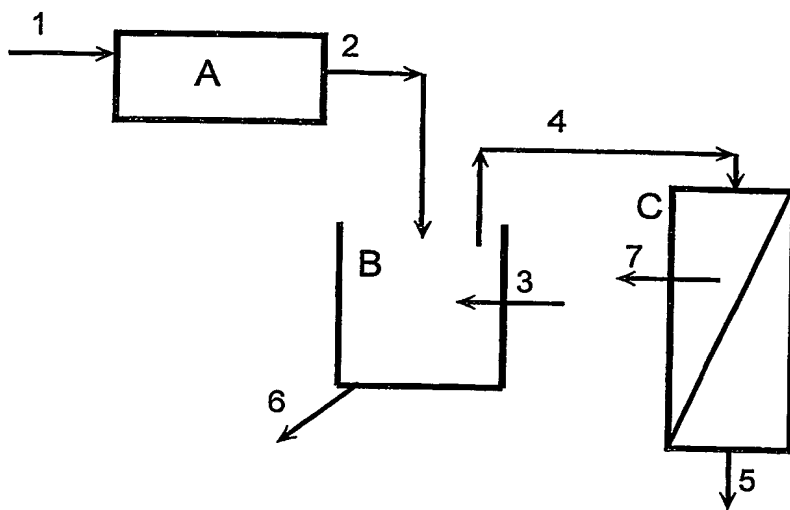
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(54) Title: PROCESSES INVOLVING THE USE OF ANTISOLVENT CRYSTALLISATION



(57) Abstract: The present invention pertains to a process to make salt compositions comprising the steps of - feeding water to a salt source to form an aqueous solution comprising said salt, - feeding said aqueous solution to a crystalliser/settler, - contacting said aqueous solution with one or more antisolvents which force the salt to crystallise, with said antisolvents exhibiting crystal growth inhibiting properties and/or crystallisation and scale inhibiting properties, and/or where one or more crystal growth inhibitors are present either in the antisolvents or the aqueous solution and/or one or more scaling inhibitors are present either in the antisolvents or the aqueous solution, - feeding an overflow of the crystalliser/settler comprising one or more antisolvents

and an aqueous salt solution to a nanofiltration unit comprising a membrane to separate the one or more antisolvents from the aqueous salt solution, - removing the crystallised salt in an aqueous slurry, - optionally, recycling the one or more antisolvents to the crystallises/ settler, and - optionally, recycling water from the slurry to the first dissolution step and/or to the crystallises/settler. Preferably, the process is a closed loop process and the salt is sodium chloride. Preferably, the process further comprises a reverse osmosis step before the overflow of the crystallises/settler is fed to a nanofiltration unit.



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